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Please read this manual thoroughly and follow the **Installation** procedures to prevent any damage to the KVM switch or any connecting device



----- *Introduction*

The **ServerLink Extend Cat5 KVM Extender** consists of a **Local Computer Unit** and a **Remote Station Unit** that can be used to locate a keyboard/monitor/mouse set up to 150 meters away from a computer or KVM switch using an inexpensive Category 5 UTP (unshielded twisted pair) cable. It provides an ideal and convenient way to remotely access the computer which is located in a secure, clean or dirty, harsh environment.

The **ServerLink Extend Cat5 KVM Extender** is designed to enable one computer to be controlled by one or two users. It also allows for a console to control two computers locally and remotely. It is an ideal solution for factory or construction areas where you want to secure your computers and valuable data or manage them either in remote or both in remote and local sites.

No software or dip switches are required, just plug and play. With one push button, two LED indicators and simple hotkey commands, you can manage this device easily.

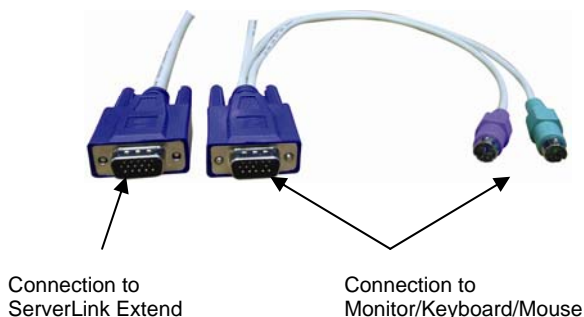


Figure 1: Connection of 1-to-3 cable

----- *Key Features*

- Connects the **Local Computer Unit** and **Remote Station Unit** via Category 5 UTP cable
- Remotely locates the keyboard, mouse and monitor up to 150m from a computer
- Supports **PS/2**
- Video compensation can be adjusted by **hotkey** to ensure the optimum signal quality for any length of cable within the limit.
- Easy to get and install the standard cable at lower cost
- Simple indication makes operation user-friendly
- Locates the computer away from your desk and work area, saving you valuable space
- Allows two users to share a single computer both in local and remote areas.
- Applicable for one console to manage two computers locally and remotely
- Beeps confirmation for key control makes the operation easier and cross-checked
- Supports for standard PS/2 keyboard & mice, including Microsoft IntelliMouse
- Compatible with XGA, VGA, and SVGA system

----- Specifications

PS/2 Model		SLX-202P
Connections		CAT5/CAT5e/CAT6 – RJ45 female
Remote Station Unit Connectors	Console	miniDIN6, female x 2 HDB15 female x 1
	Local PC	HDB15 female x 1
Local Computer Unit Connectors	Local Console	miniDIN6, female x 2 HDB15 female x 1
	PC	HDB15 female x 1
LED Indicators (Remote Station Unit)	Local	On: Controls local PC
	Remote	On: Controls remote PC
LED Indicators (Local Computer Unit)	Local	On: Controls local PC
	Remote	On: Local PC is controlled remotely Flash Alternatively: Auto mode
Push Button		Switch to the control status
Power Supply (min)		External power adapter DC 9V, 500mA
Resolution		Up to 1600 x 1200 (dependant on CAT5/CAT5e/CAT6 cable length)
Weight		293g
Dimensions (W x D x H)		156 x 65 x 20 (mm)

Table 1: Specifications of ServerLink Cat5 KVM Extenders

----- *Packing Checklist*

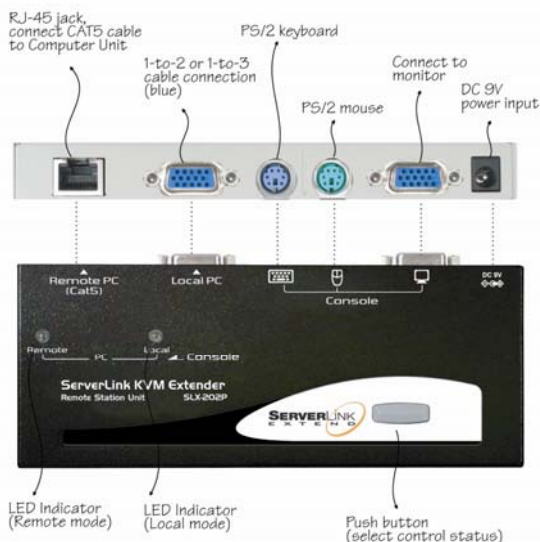
- **ServerLink Extend Cat5 KVM Extender** Remote Station Unit x 1
- **ServerLink Extend Cat5 KVM Extender** Local Computer Unit x 1
- Power Adapter – 9V DC, 600mA x 1
- User Manual x 1
- Foot Pad x 2 sets
- KVM Cable x 2 (LKS-02H)

NOTE: USE OF POWER SUPPLY

- **NOT** required if you have a computer connected to both Station and Local Computer Units
- **Required** if there is **NO** computer connected to Remote Station Unit.

Product Description

Remote Station Unit



Local Computer Unit

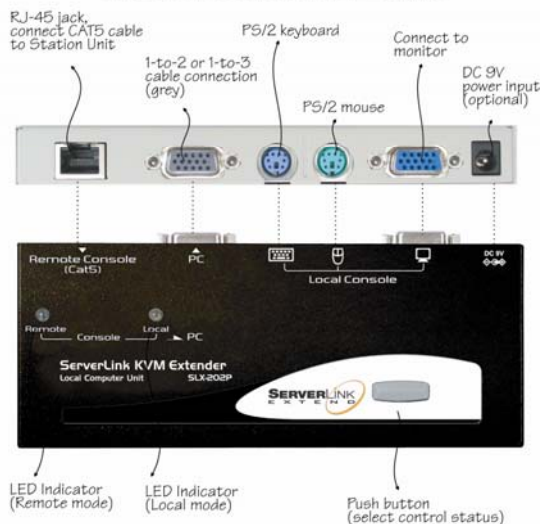


Figure 3: Indication and Connection

----- Installation

Connection Pattern

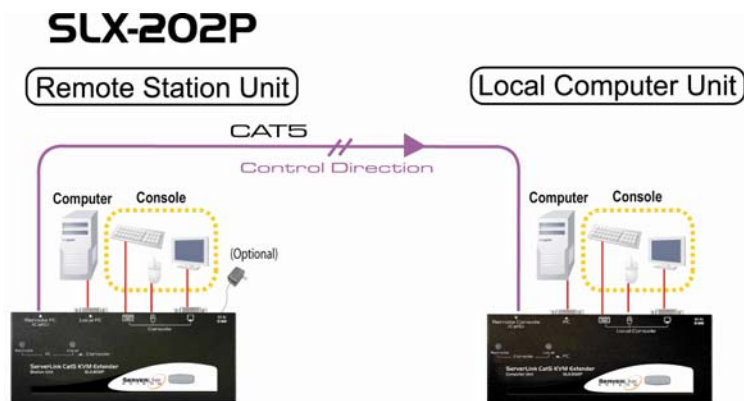


Figure 4: Connection pattern of **ServerLink Extend Cat5 KVM Extender**

- A keyboard, mouse and monitor must be connected to the **Remote Station Unit**.
- You do need to connect a computer to the **Remote Station Unit**.
- Optional Power Supply is required if there is **NO** computer connected to **Remote Station Unit**.
- A computer must be connected to the **Local Computer Unit**.
- You do not need to connect a keyboard, mouse and monitor to the **Local Computer Unit** if you don't want to control the computer locally.
- Computer connected to the **Remote Station Unit** cannot be controlled from the **Local Computer Unit**.

----- *Video Compensation*

Before operating, Video Compensation should be conducted. Hotkeys are used to adjust the Equalization on the **Remote Unit** to achieve optimum video signal for various cable lengths. There are five segments of CAT 5 cable lengths can be chosen from. To achieve the best visibility, please refer to the chapter of "Remote Station Unit Hotkeys Control" to adjust the video compensation.

Verify the length of CAT 5 cable you are using, then, use the hotkeys to adjust the video compensation. When you press **Ctrl** twice, and **F11** keys, different beeps will be sounded to indicate the setup of cable length. Please refer to **Operation of Hotkey Control**.

----- *LED Indicators*

The LEDs on the **ServerLink Extend Cat5 KVM Extender** show the latest status which indicates the linking, communication, and control situation between **Local Computer Unit** and **Remote Station Unit**.

Remote Station Unit

LED Status	Control Description
Remote: Off, Local: On	Remote Station Unit controls its local PC.
Remote: On , Local: Off	Remote Station Unit is remotely taking control of the Local Computer Unit . In this mode, there are two statuses as follows: 1. If the 3 LEDs (Num, Caps and Scroll Lock) on the keyboard are flashing, the Local Computer Unit is now taking control of the system. 2. If the 3 LEDs (Num, Caps and Scroll Lock) on the keyboard are not flashing, the system is waiting for Remote Station Unit or Local Computer Unit to take control

Table 3.1: LED - Control indication for **Remote Station Unit**

Power Up LED Status

LED Indicators
Local: On

Table 3.2: The Initial status and indication is displayed when **ServerLink Extend Cat5 KVM Extender** is powered up

Local Computer Unit

LED Status	Control Description
Remote: Off, Local: On	Local Computer Unit controls its local PC. In this mode, the Remote Station Unit cannot take control of the Local Computer Unit remotely.
Remote: On , Local: Off	Remote Station Unit is remotely taking control of the Local Computer Unit . The 3 LEDs (Num, Caps and Scroll Lock) on the keyboard will be flashing
Remote/Local Flashes alternately (Auto Mode)	The system is waiting for Remote Station Unit or Local Computer Unit to take control.

Table 4.1: LED - Control indication for **Local Computer Unit**

Power Up LED Status

LED Indicators
Local/remote: Flashes alternately

Table 4.2: The Initial status and indication is displayed when **ServerLink Extend Cat5 KVM Extender** is powered up

-----Push Button: Switch to the control status

The button on the panel of **Local Computer Unit** and **Remote Station Unit** respectively, can be pushed (switched) in sequence to select the operation modes.

Button on Remote Station Unit

The button on the panel of **Remote Station Unit** can be pushed (switched) in sequence to select the following two modes:

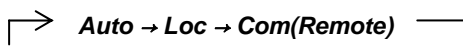


Local: The LED of Local is “**On**”. In this mode, the system controls its local computer.

Remote: The LED of Remote is “**On**”. In this mode, the system remotely controls the **Local Computer Unit**.

Button on Local Computer Unit

There are three modes that can be chosen, the sequence is as follows:




Auto:

- In this mode, the Remote and Local LEDs are flashing alternately.
- The system is now waiting to be controlled by either **Local Computer Unit** or **Remote Station Unit**.
- Once the keyboard or mouse of **Local Computer Unit** is active, the LED of Local is on and the LED of Remote is off. This status indicates that the **Local Computer Unit** is now taking control of the system.
- Once the keyboard or mouse of **Remote Station Unit** is active, the LED of Remote is on and the LED of Local is off. This status indicates that the **Remote Station Unit** is now taking control of the system.
- In either case, the latch time period of 5, 15, 30, or 60 seconds is offered to allow the **Local Computer Unit** or **Remote Station Unit** to take control again. If the latch time expires with no keyboard or mouse activity, the status returns to the “Auto” mode.
- In “Auto” mode, whenever the **keyboard, mouse buttons** or **scroll wheel** of mouse is activated, the Unit (**Local Computer Unit** or **Remote Station Unit**) immediately takes control of the system.

Local: The LED of Local is “On”. In this mode, the system is being controlled by the **Local Computer Unit**. In this case, the **Remote Station Unit** can learn this status from the flashing of 3 LEDs (**Num**, **Caps** and **Scroll Lock**) on the keyboard.

Remote: The LED of Remote is “On”. In this mode, the system is remotely controlled by the **Remote Station Unit**.

-----*Hotkeys Control*

Hotkey commands are short keyboard sequences to select a computer, to activate computer scan, and so forth. The **ServerLink Extend Cat5 KVM Extender** is always interpreting keystrokes for hotkeys. A hotkey sequence starts with two *left*  keystrokes followed by one or two more keystrokes. A built-in buzzer generates a high-pitched beep for correct hotkey command, while one short and one long beeps are sounded for wrong commands. Thus, the bad key commands will not be forwarded to the selected modes.

-----Remote Station Unit

Hotkeys Control

Hotkey Commands	Function Description
* Ctrl + Ctrl + T	Toggles console control between Local Computer and Remote Computer
Ctrl + Ctrl + Esc	Escape from hotkey mode
* Ctrl + Ctrl + 1	Switches control to local computer
* Ctrl + Ctrl + 2	Switches control to remote computer(input allowed only if the Local Computer Unit is in Remote or Auto mode)
* Ctrl + Ctrl + F2	Toggles console control between Local Computer and Remote Computer
Ctrl + Ctrl + F4 (Keyboard speed selection)	Adjusts the typematic rates of keyboard, the ServerLink Extend Cat5 KVM Extender generates 1 to 4 beeps corresponding to 6, 12, 20, and 30 characters/sec respectively.
Ctrl + Ctrl + F11 (Video Compensation Adjustment)	Adjusts the video compensation, the ServerLink Extend Cat5 KVM Extender generates 1 to 5 beeps corresponding to the cable lengths of 0~30, 30~60, 60~90, 90~120 & 120~150 meters, respectively.
Ctrl + Ctrl + F12	Mouse resynchronized (for PS/2 only)

Table 5: Hotkey control for **Remote Station Unit**

Beeps corresponding to video compensation

Ctrl + Ctrl + E + F11

Beep sounds	UTP Cable Length
1 beep	0~100 feet (0~30 meters)
2 beeps	100~200 feet (30~60 meters)
3 beeps	200~300 feet (60~90 meters)
4 beeps	300~400 feet (90~120 meters)
5 beeps	400~500 feet (120~150 meters)

-----Local Computer Unit Hotkeys Control

Hotkey Commands	Function Description
Ctrl + Ctrl + T	Toggle switch selects Auto-Loc-Rem mode
Ctrl + Ctrl + Esc	Escape from hotkey mode
Ctrl + Ctrl + 1	Local Mode: Allows the user at local computer exclusive access to the system; remote access from computer at Remote Station Unit is disabled.
Ctrl + Ctrl + 2	Remote Mode: Allows the remote user at Remote Station Unit exclusive access to the computer at Local Computer Unit ; access to the computer from the Local Computer Unit is disabled
Ctrl + Ctrl + 3	Auto mode selection
Ctrl + Ctrl + F3	Auto mode latch time: 5, 15, 30, 60 seconds
Ctrl + Ctrl + F4 (Keyboard speed selection)	Adjust the typematic rates of keyboard, the ServerLink Extend Cat5 KVM Extender generates 1 to 4 beeps corresponding to 6 , 12 , 20 , and 30 characters/sec respectively.
Ctrl + Ctrl + F12	Mouse resynchronization (for PS/2 only)

Table 6: Hotkey control for **Local Computer Unit**

- Mouse resynchronization:

When the mouse can not work normally, conduct this function and make it synchronized with your system.

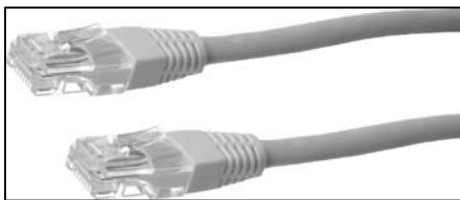
-----Appendixes

Cable Requirements

The cable use to connect the **Local Computer Unit** and **Remote Station Unit** can be either Category 5, Category 5e or Category 6 terminated with RJ45 connectors. These are purchased separately. This cable is not provided with the standard package because it is subject to the different lengths you may require. The length of cable used should be less than 150m, otherwise poor results, especially for video resolution, may occur over distances beyond the limit.

CAT5/CAT5e/CAT6 Cable

The **ServerLink Extend Cat5 KVM Extender** requires an unshielded twisted pair(UTP) cable up to a maximum length of 150 meters.

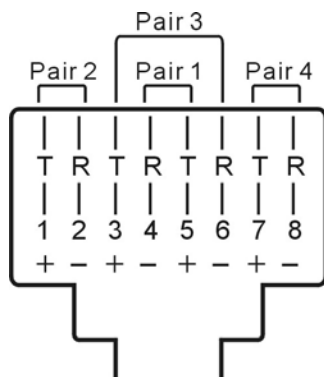


The cable must be wired in compliance with the EIA/TIA 568B industry standard as shown below.

Pin	Wire Color	Pair	Function
1	White/Orange	2	T
2	Orange	2	R
3	White/Green	3	T
4	Blue	1	R
5	White/Blue	1	T
6	Green	3	R
7	White/Brown	4	T
8	Brown	4	R

Table A1: Wiring definition of CAT5

Note: CAT5, CAT5e or CAT6 cables may be used for extender pair.



The above diagram shows the RJ45 connector of a CAT5/CAT5e/CAT6 cable with its metal contacts facing up.

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